

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 January 2004 (15.01.2004)

PCT

(10) International Publication Number
WO 2004/004542 A3

(51) International Patent Classification⁷: **A61B 17/08**

Tracy, CA 95376 (US). **SCOTT, J., Stephen** [US/US]; 131 Muirefield Crest Court, St. Charles, MO 63304 (US).

(21) International Application Number:
PCT/US2003/019617

(74) Agents: **HAN, John, U.** et al.; Morrison & Foerster LLP, 755 Page Mill Road, Palo Alto, CA 94304 (US).

(22) International Filing Date: 20 June 2003 (20.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/188,547 2 July 2002 (02.07.2002) US

(71) Applicant (for all designated States except US): **SATIETY, INC.** [US/US]; 2470 Embarcadero Way, Palo Alto, CA 94303-3313 (US).

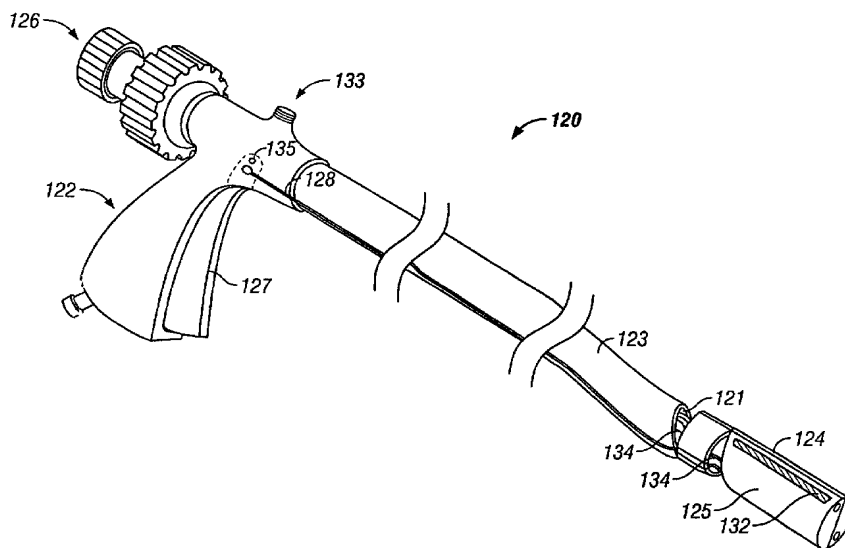
(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

[Continued on next page]

(54) Title: METHOD AND DEVICE FOR USE IN TISSUE APPROXIMATION AND FIXATION



(57) Abstract: Methods and devices for use in tissue approximation and fixation are described herein. The present invention provides, in part, methods and devices for acquiring tissue folds from the anterior and posterior portions of a hollow body organ, e.g., a stomach, positioning the tissue folds for affixing within a fixation zone of the stomach, preferably to create a pouch or partition below the esophagus, and fastening the tissue folds such that a tissue bridge forms excluding the pouch from the greater stomach cavity. The present invention further provides devices for performing a transoral, endoscopic hollow organ division, including a tissue acquisition device (120) capable of acquiring the desired tissue, and a fastening element to secure the outer layers of the acquired tissue such that the desired healing response is achieved.

WO 2004/004542 A3



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

2 September 2004

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/19617

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 17/08
US CL : 606/153

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 606/153, 151

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,411,508 A (BESSLER et al.) 02 May 1995 (02.05.1995), See figures 9B and 9C; Column 15 line 55 to Column 16 line 29.	1, 15, 20, 21
X	US 5,792,153 A (SWAIN et al.) 11 August 1998 (11.08.1999), See figures 8 and 9; Column 3, lines 23-60.	1, 15
X	US 2002/0082621 A1 (SCHURR et al.) 27 June 2002 (27.06.2002), See Figure 14; paragraph [0099].	1, 2, 15, 16, 27
X	US 6,231,561 B1 (FRAZIER et al.) 15 May 2001 (15.05.2001), See figures 9-11; Column 11, lines 1-18.	1, 15, 20, 27
X	US 4,402,445 A (GREEN) 06 September 1983 (06.09.1983), See figures 6, 9, and 16; Column 4, lines 47-63.	56 and 57
X	US 6,200,318 B1 (HAR-SHAI et al.) 13 March 2001 (13.03.2001), See column 5 line 56 to Column 6 line 11; Fig. 10.	56 and 58



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

21 June 2004 (21.06.2004)

Date of mailing of the international search report

19 JUL 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Bradford C Pantuck

Telephone No. (703) 308-0858

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/19617

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐
☒

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

PCT/US03/19617

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This International Search Authority has found 3 inventions claimed in the International Application covered by the claims indicated below:

- I. Claims 1-26, drawn to a method of partitioning a body organ
- II. Claims 27-55 drawn to an apparatus for acquiring tissue
- III. Claims 56-58 drawn to an apparatus of a tissue clamp

1. This International Searching Authority considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2, 13.3) for the reasons indicated below:

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the three groups do not share special technical features.